

SEMICONDUCTOR DEVICE COMPRISING BIPOLAR
TRANSISTORS AND METAL OXIDE SEMICONDUCTOR
TRANSISTORS AND MANUFACTURING METHOD

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ABSTRACT OF THE DISCLOSURE

A method for manufacturing a semiconductor apparatus
10 is disclosed. The apparatus comprises double poly bipolar
transistors and double poly metal oxide semiconductor (MOS)
transistors. The bipolar transistors and the MOS transistors are
manufactured in a unified process in which a first polysilicon
layer (Poly1) is doped to form the extrinsic bases in the bipolar
15 transistors and to form the gates in the MOS transistors.
A second polysilicon layer (Poly2) is doped to form emitters in
the bipolar transistors and to form the sources and drains in the
MOS transistors. The method of the invention minimizes the number
of manufacturing process steps.